APPENDIX A
CLAIM SUPPORT IN
APPLICATION NO. 09/480,828

1. A minimally invasive coronary anastomosis procedure for a blocked coronary artery of a heart, the procedure comprising:	See, e.g., figures 1-2, 13-15, 16-17, 18-21, 22, 23, 26, 27, 28, 29, 30, 31-32, 33-34, and 39; Page 14, lines 12-16: "Referring now in detail to the drawings, therein illustrated are novel embodiments of an access platform that facilitates the dissection of an internal mammary artery (IMA), including both proximal and distal dissection, and access to the heart during a "beating heart" Coronary Artery Bypass Graph (CABG) procedure by increasing the surgeon's working space and visual access."
providing an incision in an intercostal space between two ribs of a patient, the incision providing access to a selected anastomosis site;	See, e.g., Figure 1; Page 14, lines 19-22: " Turning to Figure 1, the access platform 10 incorporating a preferred embodiment of the present invention, is shown disposed over the outline of a patient's chest P. An incision in the patient's chest P adjacent to the LIMA (shown in phantom) exposes an LAD artery on the exterior of the patient's heart."
inserting a spreader device between the two ribs, the spreader device having a first end for engaging the first rib and a second end for engaging the second rib;	See, e.g., Page 22, lines 10-15: "In operation, the blades 50 and 51 are positioned within the incision in the patient's chest such that the vanes 52 and 53 slide under the patient's ribs R (see Figs. 6 and 7). The throats 54 and 55 of the blades 50 and 51 receive and substantially surround opposing ribs adjacent to the incision in the patient's chest. Once the blades 50 and 51 are in position, the blades 50 and 51 are connected to the rest of the access platform 10 by inserting the stems 62 and 63 (see Figure 2) of the blade arms 56 and 57 into the sockets 34 and 35 in the torque bases 32 and 33;"
	Page 25, line 18-Page 26, line 2: "In operation, the blades 140 and 141 are inserted in an incision in the patient's chest such that the blade vanes 142 and 143 slide under the patient's ribs and the recessed throats 144 and 145 of the blades 140 and 141 capture the ribs that are adjacent to the incision. After the blades 140 and 141 are properly positioned, the stems 152 and 153 of the blade arms 146 and 147 are inserted into the sockets 154 and 155 of the vertical displacement members 130 and 131 to connect the blades 140 and 141 to the remainder of the access platform 110. The levers 125 and 126 are then rotated to drive the pinions 121 and 122 over the rack 120 to laterally retract the ribs;"
	Page 28, lines 3-8: "In operation, the blades 230 and 231 are inserted into the chest incision and positioned such that the vane sections 232 and 233 slide under the patient's ribs R and the recess throat sections 234 and 235 capture the patient's ribs R adjacent to the incision. Once the blades 230 and 231 are properly in place, the stems 240 and 241 of the blade arms 236 and 237 are inserted into the sockets 217 and 219 of the pinion housings 216 and 218. Next, the levers 224 and 226 are rotated to drive pinions 220 and 222 along the rack 214 to laterally retract the ribs;"

Page 34, lines 3-6: "In operation, the access platform 410 is positioned such that the blades 470 and 472 can be inserted into an incision in a patient's chest and then attached to the blade arms 474 and 476. Once the blades 470 and 472 are positioned in the incision and attached to the blade arms 474 and 476, the lever 426 is rotated to spread the blades 470 and 472 and the patient's ribs apart;"
Page 35, lines 3-6: " In operation, the blades 532 and 550 are inserted into an incision in the patient's chest and then the stems 526 and 542 of the blade arms 528 and 548 are inserted into the sockets 524 and 544. The lever 538 is rotated to drive the pinion 536 along the rack 520 until the blades 532 and 550 and the patient's ribs are positioned at a desired spacing;"
Page 36, lines 7-12: "In operation, the inferior and superior blades 650 and 652 are inserted in an incision in the patient's chest capturing the inferior and superior ribs adjacent to the incision. The pad arm 683 is sufficiently long to position the sternal pad 681 adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad 681 are properly positioned, the spreader lever 604 is rotated to transversely drive the blade arm 640 connected to the inferior blade 650 along the drive slot 608 to separate the inferior and superior blades 650 and 652;"
Page 38, lines 18-23: "In operation, the blades 650 and 652 are inserted into an incision in the patient's chest while the sternal pad 681 is positioned adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad are properly positioned, the spreader handle 605 is rotated in an appropriate direction to longitudinally and rotatably drive the threaded shaft 603 through the shaft carrier 607 and thereby traversely drive the drive block 609 along the drive base 601 until the separation between the blades 650 and 652 reaches a desired spacing;"
Page 42, line 15-Page 43, line 8: "In operation, the blades 650 and 652 are inserted in an incision in the patient's chest such that the elongated vanes 656 and 657 of the blade 652 are positioned under the patient's ribs while the recessed throats 653 and 654 of the blades 650 and 652 are positioned to receive the ribs that are adjacent to the incision. After the blades 650 and 652 are properly positioned, the stem 644 of the blade arm 640 is inserted through the fixed pivot lock 615 into the socket 618 of the fixed pivot 616. Meanwhile, the stem 646 of the blade arm 642 is inserted through the moveable pivot lock 626 and the end of the shoe arm 682 opposite the shoe 680, and into the socket 625 of the moveable pivot 624. The blade 650 is then fixed in position by tightening the fixed pivot lock screw 617 to tighten the fixed pivot lock 615 around the stem 644 of the blade arm 640. The rib compression shoe 680 is then adjusted downwardly by adjusting the adjustable offset drive screw 636 until the desired compression of the ribs is achieved. The blade 652 that is interconnected to the moveable pivot 624 is then fixed in position relative to the shoe 680 by tightening the moveable pivot lock screw 627 to tighten the moveable pivot lock 626 around the stem 646 of the blade arm 642. The ribs are then separated and simultaneously offset by rotating the lever 622 to drive the pinion 621 along the rack 613 until a desired opening width is realized;"

	Page 45, line 20-Page 46, line 13: "In operation, with the superior blade 712 and sternal pad 714 assembly separated from the rest of the access platform 700, the superior blade 712 and sternal pad 714 assembly is positioned on the patient's chest. Initially the angle between the blade and pad arms 711 and 715 is large or nearly flat. The superior blade 712 is then inserted into an incision in the patient's chest wall and slid under the superior ribs adjacent to the incision. With the superior blade 712 properly positioned within the incision, the sternal pad 714 is adjusted downwardly on top of the patient's chest wall by rotating the pad arm 715 relative to the blade arm 711 in a clockwise direction to decrease the angle between the pad arm 715 and blade arm 711. Next, the rest of the access platform 700 with the inferior blade 706 attached, is aligned on the patient's chest. The inferior blade 706 is then inserted into the incision in the patient's chest. The blade arm 711 and pad arm 715 assembly is then rotatably mounted on the shaft 710. The access platform 700 is now fully assembled and the blades 706 and 712 are in parallel alignment. The handle 701 is rotated to spread the blades 706 and 712."
	Page 49, line 20-Page 50, line 3: " In operation, the inferior and superior blades 783 and 796 are inserted into an incision in the patient's chest while the sternal pad 785 is positioned adjacent the patient's upper sternal-costal area. After the blades 783 and 796 and the sternal pad 785 are properly positioned, if the surgeon only desires to spread the ribs, only the spreader handle 793 is rotated in an appropriate direction to traversely drive the drive screw 787 and the carrier 789 along the drive base 781. As the carrier 789 is driven along the drive base 781, the superior blade 796 is separated from the inferior blade 783."
lifting the spreader device such that the second and juxtaposed ribs are elevated with respect to the first rib thereby exposing an internal mammary artery sufficiently for direct visualization;	See, e.g., Page 22, line 16-Page 23, line 7: "Next, the hub 14 of the spreader member 12 is rotated to laterally spread the spreader arms 18 and 19 apart until the blades 50 and 51 have retracted the patient's ribs R to a desired spacing. The support pads 80 and 81 are then lowered to rest on the patient's chest and locked in place with lock positioners 90 and 91. At this point, the torque bases 32 and 33 are rotated relative to the torsional members 30 and 31 to displace in an essentially vertical direction the blades 50 and 51, and ultimately the patient's ribs R, relative to each other. As the blade 51 is raised, the corresponding support pad 81 depresses the patient's sternum to cause a greater deflection in the patient's rib cage and, thus, increase the "tunnel" effect. The elongated vane construction of the blades 50 and 51 advantageously enables the access platform 10 to vertically raise a plurality of the patient's ribs R to cause a greater "tunnel" effect under a patient's rib cage and, thus, increases the surgeon's working area and visual access to the IMA. The recessed throat construction of the blades 50 and 51 advantageously enables the access platform 10 to vertically displace the opposite rib that is adjacent to the chest incision downwardly to further increase the surgeon's visual access. This combined motion helps to create an optimum tunnel;"

Page 26, lines 2-9: "When a desired spacing between the retracted ribs is met, the support pads 160 and 161 are positioned on the chest of the patient, with support pad 160 being preferably positioned on the patient's sternum. The levers 138 and 139 are then rotated to drive the pinions 136 and 137 to draw the curved racks 132 and 133 through the pinion housing 134 and 135 to vertically displace the blades 140 and 141 and the retracted ribs. As the blade 140 is retracted upwards the support pad 160 preferably depresses the sternum creating a greater deflection in the patient's rib cage and, thus, creating a greater "tunnel" effect underneath the patient's rib cage, to increase the surgeon's working space and visual access for dissection of the IMA;"
Page 28, lines 8-12: "The "L"-shaped lever 256 is then rotated downwardly in a counterclockwise direction toward the patient's chest such that the slide portion 259 slides along the support pad 252 toward the housing 220 while the "L"-shaped lever 256 rotates about the pivot 258. As a result, one end of the rack 214 is raised to vertically offset blade 230 and ribs R relative to the blade 231 and ribs R;"
Page 30, line 16-Page 31, line 3: "In operation, the blade 384 is positioned such that the throat 388 captures the blade 350 or 352 of the access platform 310. As the throat 388 captures the blade 350 or 352 the elongated vane 386 extends under a plurality of the patient's ribs to be offset. The pivot base 377 and the pivots 378 and 380 enable the pry bar 370 to be adjustably positioned about two different axes of rotation. Once the blade 384 is positioned, the sternal pad 374 is adjustably located to atraumatically conform the pry bar 370 to the anatomy of the patient. Once the sternal pad 374 is in position, a handle 375, in the upper portion of the "S"-shaped body 372, is pulled to pivot the pry bar 370 about the sternal pad 374 and lift the blade 384 and the blade 350 or 352 of the access platform 310 to offset the patient's ribs and create a "tunnel" to increase the surgeon's working space and visual access for the dissection of the IMA;"
Page 34, lines 7-13: "The blades 470 and 472 can be effectively offset by rotating the inner hubs 461 and 465 relative to the outer hubs 463 and 467. While the blades 470 and 472 are rotated, the stanchion racks 430 and 432 can be raised or lowered by rotating levers 486 and 488 to drive pinions 442 and 444. By raising or lowering the stanchion racks 430 and 432, the blades 470 and 472 can be effectively raised or lowered relative to one another to further offset the blades 470 and 472 relative to one another. A wrench 468 is utilized to rotate the inner hubs 461 and 465 relative to the outer hubs 463 and 467;"
Page 35, lines 7-9: " The rack 520 is then lifted by the handle 552 to vertically displace or offset the blade 550 and the patient's ribs relative to the blade 532;"

Page 36, lines 12-20: "Once the inferior and superior blades 650 and 652 are separated to a desired spacing, the offset assembly 660 is activated to lift the superior blade 652. As the offset lever 664 is rotated in an appropriate direction, the drive carrier 662 will be driven along the lead screw 661. As the drive carrier 662 rises along the lead screw 661, the drive link 665 and guide link 666 pivot in a clockwise rotation about pivots 687 and 688 causing the superior blade 652 to rotate about a remote center of rotation shown at 669. As the superior blade 652 is rotated about the remote center of rotation 669, the pad arm 683 and sternal pad 681 apply the necessary torque against the patient's upper sternal-costal area to maintain the lift on the superior ribs;"
Page 38, line 23-Page 39, line 13: "To offset the blades 650 and 652, the offset handle 695 is rotated in an appropriate direction to rotate the worm gear 697 and drive the worm gear rack 698 in a clockwise direction. The rotation of the worm gear rack 698 in a clockwise direction pivots the superior blade 652 about the branch 643 of the blade arm 642 in a clockwise rotation. By rotating the superior blade 652 in a clockwise rotation, the superior ribs captured by the superior blade 652 are lifted and a torque necessary to maintain the lift of the ribs is applied to the patient's upper sternal-costal area through the sternal pad 681. By rotating the spreader and offset handles 605 and 695 simultaneously in an appropriate direction, the lifting of the superior ribs is advantageously achieved while simultaneously spreading the blades 650 and 652 or maintaining the already retracted spacing between the blades 650 and 652 and corresponding ribs. More particularly in regard to maintaining the retracted spacing, by rotating the spreader handle 605 simultaneously with the offset handle 695, the drive block 609 is traversely driven along the drive base 601 to compensate for the rearward lateral component of the superior blade's 652 motion as it travels upward in a clockwise arc;"
Page 43, lines 3-21: "The ribs are then separated and simultaneously offset by rotating the lever 622 to drive the pinion 621 along the rack 613 until a desired opening width is realized. Because the movable pivot 624 is advantageously located above the blade 652, the superior blade 652 naturally raises vertically as it rotates about the moveable pivot 624 as a spreading force from the inferior blade 650 is transmitted to the superior blade 652 through the movable pivot 624. Further adjustment of an offset height of the superior blades 652 may be obtained by first loosening the moveable pivot lock 626 around the stem 646 of the blade arm 642 and then adjusting the adjustable offset drive screw 636 to cause the shoe 680 and the shoe arm 682 to rotate downwardly in a clockwise direction relative to the superior blade 652 and, thus, cause the blade 652 that is interconnected to the moveable pivot 624 to rise vertically until a desired offset is achieved. Alternatively, the blade arm 642 would remain fixed to the shoe arm 682 as the offset drive screw 636 is adjusted to cause the shoe 680 and shoe arm 682 to rotate downwardly in a clockwise direction. The clockwise rotation of the shoe 680 and shoe arm 682 causes the blade 652 to rotate upwardly in a clockwise direction;"

Page 46, lines 10-15: "The handle 701 is rotated to spread the blades 706 and 712. Because the shaft 710 is located above the superior blade 712 and because the superior blade 712 and sternal pad 714 assembly pivots freely around the shaft 710 a lifting of the superior blade 712 and ribs naturally occurs as the blades 706 and 712 are separated. The spreading force from the inferior blade 706 is transmitted to the superior blade 712 through the shaft 710 located above the superior blade 712;"
Page 50, lines 3-11: "If the surgeon wishes to raise the ribs as well as spread the ribs, the offset handle 794 is rotated in an appropriate direction to traversely drive the drive screw 787 and carrier across drive base 781 as well as traversely drive the carrier 789 along the drive screw 787. The spreader handle 793 is either held stationary, counter-rotated or rotated in the same direction, depending upon the desired rate of rib lift relative to the rate of rib spreading. As the blades 783 and 796 separate and the shaft-end 787A decreases, the superior blade 796 and ribs naturally lift and rotate in a clockwise direction about the pivot 799 as a torque is applied through the sternal pad 785 to the upper sternal-costal area of the patient's chest to maintain the lift in the superior blade 796 and ribs;"
Page 52, lines 3-16: "In operation, the superior blade 820 and ribs are naturally lifted as the blades 805 and 820 are separated. Because the pivot 819 is located above the superior blade 820, a lifting force is exerted on the superior blade 820 and ribs while spreading is occurring. The spreading force from the inferior blade 805 is transmitted to the superior blade 820 through the high-mounted pivot 819. However, the lift of the ribs or, more particularly, the rotation of the superior blade 820 about the pivot 819 in a clockwise direction is inhibited by the force exerted by the offset spring 810. The superior blade 820 and ribs will not begin to lift until the moment force caused by the rotation of the superior blade 820 about the pivot 819 is greater than the spring force exerted by the offset spring 810 on the lift tab 809. The spring force is adjustable, and hence the amount of offset is adjustable, by rotating the handle 812 to lower or raise the compression member 813 along the offset screw 811. As the compression member 813 is lowered or brought closer to the tab 809, the spring force exerted by the offset spring 810 is increased, and hence the amount the superior blade 820 is lifted or rotated is decreased. Thus, the adjustable spring force can be used in a "pre-set" mode by the surgeon;"
Page 54, lines 11-21: "In operation, the handle 732 is first rotated in a counterclockwise direction to lift and separate the superior blade 740 and ribs from the inferior blade 741 and ribs. Once in the offset position, the offset positioning assembly 748 is engaged by sliding the shafts 750 and 751 into the holes 757 and 758 of the positioning mounts 746 and 747 on the inferior and superior blades 741 and 740. The pad arm 756 is rotated downwardly until the sternal pad 755 contacts the patient's chest (see Figure 47). The offset spreader assembly 731 is then removed by sliding the tails 744 and 745 of the blade mounts 734 and 735 off of the pins 742 and 743 of the blades 740 and 741. With the offset spreader assembly 731 removed, the offset positioning assembly 748 holds the blades 740 and 741 apart and applies the necessary torque against the patient's upper sternal-costal area to maintain the lift on the superior blade 740 and ribs. While in the offset position, the access to dissect the IMA is wide open;"

	Page 55, lines 7-11: " In operation, force is applied to the free end of the handle 761 to rotate the handle 761 in a counterclockwise direction about pivots 764 and 765 on the inferior blade mounts 771 and 770 and lift and separate the superior blade 740 in a single motion from the inferior blade 741. The U-shaped handle 761 and stabilizing links 762 and 763 facilitate the lateral stability of the access platform 729."
dissecting the internal mammary artery; and	See, e.g., Page 23, lines 19-23: "In a first offset position, the blade 51 raises the retracted ribs and the blade 50 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 50 and 51 are rotated to a second offset position wherein the blade 50 raises the retracted ribs and the blade 51 depresses the retracted ribs. In this offset position, the surgeon takes down the distal portion of the IMA;"
	Page 26, line 20-Page 27, line 1: "In a first offset position, the blade 141 raises the retracted ribs and the blade 140 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 140 and 141 are adjusted to a second offset position wherein the blade 140 lifts the retracted ribs and the blade 141 depresses the retracted ribs. In the second offset position, the surgeon takes down the distal portion of the IMA;"
	Page 36, lines 21-22: "In the offset position, with the superior blade 652 maintaining a lift of the superior ribs and the tissue retractors 670 and 672 engaged, a surgeon can dissect the IMA;"
	Page 39, lines 14-15: "With the superior blade 652 and ribs raised in an offset position, the surgeon can dissect the IMA;"
	Page 44, lines 5-6: "In the offset position, with the superior blade 652 raising the patient's ribs, the surgeon can dissect the IMA;"
	Page 46, lines 15-16: "With the blades 706 and 712 offset, the surgeon can harvest the IMA. Upon completion of the IMA harvest;"
	Page 50, lines 11-12: "While in the offset position, the surgeon can dissect the IMA."

performing the anastomosis through the incision using the internal mammary artery.	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 37, lines 1-2: "In the substantially level separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 39, lines 17-18: "With the blades 650 and 652 in a level and separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."
2. The procedure of claim 1 wherein the patient is positioned on a surgical table, and wherein the spreader device is lifted using a lifting mechanism that is mounted to the surgical table and extends upwardly to a position above the patient.	See, e.g., Figure 26; Page 33, lines 7-14: "Turning to Figure 26, a ninth embodiment of the access platform 410 of the present invention is shown. The access platform 410 mounts to the table or rail via slides 438 and 440 that are locked in place by positioners 450 and 452. The slides 438 and 440 rotatably retain pinions 442 and 444 driven by levers 446 and 448 and slidably receive stanchion racks 430 and 432. The stanchion racks 430 and 432 include rack gears 434 and 436 that operably couple with pinions 442 and 444. The levers 446 and 448 are rotated to drive the pinions 442 and 444 along rack gears 434 and 436 to adjust the height of the stanchion racks 430 and 432 relative to the table or patient, or to vertically offset blades 470 and 472 relative to one another."
3. A device for use in a surgical procedure in which an incision is made between two juxtaposed ribs of a patient, the device comprising:	See, e.g., Figures 18, 19, 20, 21 and 26.
a first arm member having a proximal end portion and a distal end portion, the distal end portion having a rib engaging blade, and the distal and proximal end portions being hingedly attached to each other;	See, e.g., Page 29, lines 1-7: "A pair of blade arms 338 and 340 include branch sections 346 and 348 that extend downwardly from central portions 339 and 341 and connect to blades 350 and 352. Stem portions 342 and 344 extend from the central portions 339 and 341 opposite the branch sections 346 and 348. The stem 342 extends between and is pivotally mounted to fingers 330A and 330B at a pivot 331. Likewise, stem 344 extends between and is pivotally mounted to fingers 332A and 332B at a pivot 333. As a result, the blade arms 338 and 340 rotate about an axis of rotation A_1 that is parallel to the rack 320;"

	Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
a second arm member having a proximal end portion and a distal end portion, the distal end portion having a rib engaging blade and the distal and proximal end portions being hingedly attached to each other;	See, e.g., Page 29, lines 1-7: "A pair of blade arms 338 and 340 include branch sections 346 and 348 that extend downwardly from central portions 339 and 341 and connect to blades 350 and 352. Stem portions 342 and 344 extend from the central portions 339 and 341 opposite the branch sections 346 and 348. The stem 342 extends between and is pivotally mounted to fingers 330A and 330B at a pivot 331. Likewise, stem 344 extends between and is pivotally mounted to fingers 332A and 332B at a pivot 333. As a result, the blade arms 338 and 340 rotate about an axis of rotation A_1 that is parallel to the rack 320;"
	Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
a mechanism that operably connects the first and the second arm members at the proximal end such that the arm members are movable toward and away from each other; and	See, e.g., Page 28, lines 16-22: " A fourth embodiment is shown in Figure 18. The access platform 310 of the fourth embodiment includes a spreader member 312 comprising a rack 320, a housing 322 slidably received over the rack 320, a pinion 324 rotatably retained in the housing 322 and a lever 326 connected to the pinion 324. A spreader base 328 is attached to one end of the rack 320. A pair of parallel spaced fingers 330A and 330B extend from the housing 322. Similarly, a pair of parallel spaced fingers 332A and 332B extend from the spreader base 328 and are positioned parallel to the fingers 330A and 330B extending from the housing 322;"

	Page 33, lines 15-19: " A pinion housing 422 is slidably attached to the stanchion rack 432 towards its upper end. A rack 420 is attached at one end to stanchion rack 430 and is slidably received in the pinion housing 422. A pinion 424 driven by a lever 426 is rotatably retained in the pinion housing 422 and operably connected to the rack 420. The lever 426 is rotated to drive the pinion 424 along the rack 420 to spread apart the stanchion racks 430 and 432 and effectively a patient's ribs."
a retractor lifting device, the device comprising a blade portion for engaging the blade of the second arm member, and a post member secured to an operating table on which the patient lies, and a handle section to which the blade section is movably attached, and a mechanism for moving the blade portion in an upward direction thereby lifting the blade of the second arm member which results in lifting a section of the patient's ribs.	Page 33, lines 7-14: "Turning to Figure 26, a ninth embodiment of the access platform 410 of the present invention is shown. The access platform 410 mounts to the table or rail via slides 438 and 440 that are locked in place by positioners 450 and 452. The slides 438 and 440 rotatably retain pinions 442 and 444 driven by levers 446 and 448 and slidably receive stanchion racks 430 and 432. The stanchion racks 430 and 432 include rack gears 434 and 436 that operably couple with pinions 442 and 444. The levers 446 and 448 are rotated to drive the pinions 442 and 444 along rack gears 434 and 436 to adjust the height of the stanchion racks 430 and 432 relative to the table or patient, or to vertically offset blades 470 and 472 relative to one another;"
	Page 34, lines 7-13: " The blades 470 and 472 can be effectively offset by rotating the inner hubs 461 and 465 relative to the outer hubs 463 and 467. While the blades 470 and 472 are rotated, the stanchion racks 430 and 432 can be raised or lowered by rotating levers 486 and 488 to drive pinions 442 and 444. By raising or lowering the stanchion racks 430 and 432, the blades 470 and 472 can be effectively raised or lowered relative to one another to further offset the blades 470 and 472 relative to one another. A wrench 468 is utilized to rotate the inner hubs 461 and 465 relative to the outer hubs 463 and 467."
4. The device of claim 3 wherein the mechanism includes a rack bar fixedly attached to the first arm member at one end and at another end movably engages the proximal end portion of the second arm member such that the second arm member moves away and toward the first arm member along the rack bar.	See, e.g., Page 28, lines 16-22: " A fourth embodiment is shown in Figure 18. The access platform 310 of the fourth embodiment includes a spreader member 312 comprising a rack 320, a housing 322 slidably received over the rack 320, a pinion 324 rotatably retained in the housing 322 and a lever 326 connected to the pinion 324. A spreader base 328 is attached to one end of the rack 320. A pair of parallel spaced fingers 330A and 330B extend from the housing 322. Similarly, a pair of parallel spaced fingers 332A and 332B extend from the spreader base 328 and are positioned parallel to the fingers 330A and 330B extending from the housing 322;"
	Page 33, lines 15-19: " A pinion housing 422 is slidably attached to the stanchion rack 432 towards its upper end. A rack 420 is attached at one end to stanchion rack 430 and is slidably received in the pinion housing 422. A pinion 424 driven by a lever 426 is rotatably retained in the pinion housing 422 and operably connected to the rack 420. The lever 426 is rotated to drive the pinion 424 along the rack 420 to spread apart the stanchion racks 430 and 432 and effectively a patient's ribs."

5. The device of claim 3 wherein the first arm member further includes two hinge sections and a mid-section that is hingedly attached to the proximal end portion at one end and to the distal end portion at another end.	See, e.g., Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
6. The device of claim 3 wherein the second arm member further includes two hinge sections and a mid-section that is hingedly attached to the proximal end portion at one end and to the distal end portion at another end.	See, e.g., Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
7. The device of claim 3 wherein the distal end portion of the first arm member further includes a plurality of fingers extending away from the blade for retaining fatty tissue away from the incision.	See, e.g., Figures 9-12; Page 20, lines 4-Page 2, line 6: "As shown in Figure 9, a tissue retractor 100 alternatively includes a plurality of malleable retractor fingers 101A, 101B and 101C extending upwardly from the throat section 55 of the blade 51. The retractor fingers are preferably constructed from annealed sheet metal approximately 0.035 inch thick. The fingers 101A, 101B and 101C are preferably welded onto the blades 51 or 50. Prior to operation, the retractor fingers 101A, 101B and 101C extend relatively vertically from the blade 51 or 50. Once the blade 51 or 50 is in position, the retractor fingers 101A, 101B and 101C are bent over the patient's rib cage to retract the soft tissue adjacent to the incision area out of the surgeon's working space. Because of the thickness of the sheet metal, the retractor fingers 101A, 101B and 101C are easily deformed and retain their position once deformed.

	Turning to Figures 10, 11 and 12, the tissue retractor 100 optionally includes a positioner assembly 103. The positioner assembly 103 includes a retractor base 104 mounted to the blade 51 by mounting pins 114. A semi-cylindrical guide 107 extends the length of the retractor base 104. The central portion 109 of the guide 107 is formed integrally with the retractor base 104. The outer portions of the guide 107, however, are formed in a spaced apart relation with the retractor base 104 and extend outwardly from the central portion 109 of the guide 107. A generally wedge-shaped brake 108 also extends the length of the retractor base 104. The brake 108 is formed integrally with the guide 107 extending radially away from the guide at a narrowly formed flexure 106 which extends the length of the brake 108 and guide 107. A tab 105 located adjacent to the central portion 109 of guide 107 extends vertically from the brake 108. A pair of sleeves 102A and 102B are rotatably received over the guide 107 and brake 108. The sleeves 102A and 102B are connected to or formed integrally with the retractor fingers 101A and 101C, respectively. The retractor fingers 101A and 101C are formed integrally with or are attached to a central retractor finger 101B. The brake 108 includes a radius 111 extending downwardly from the flexure 106. As the brake is rotated in the counterclockwise direction, the radius 111 exceeds the radius of the sleeves 102A and 102B;"
8. A minimally invasive coronary anastomosis procedure for a blocked coronary artery of a heart, the procedure comprising:	See, e.g., figures 1-2, 13-15, 16-17, 18-21, 22, 23, 26, 27, 28, 29, 30, 31-32, 33-34, and 39; Page 14, lines 12-16: "Referring now in detail to the drawings, therein illustrated are novel embodiments of an access platform that facilitates the dissection of an internal mammary artery (IMA), including both proximal and distal dissection, and access to the heart during a "beating heart" Coronary Artery Bypass Graph (CABG) procedure by increasing the surgeon's working space and visual access."
providing an incision in an intercostal space between two ribs of a patient, the incision providing access to a selected anastomosis site;	See, e.g., Figure 1; Page 14, lines 19-22: " Turning to Figure 1, the access platform 10 incorporating a preferred embodiment of the present invention, is shown disposed over the outline of a patient's chest P. An incision in the patient's chest P adjacent to the LIMA (shown in phantom) exposes an LAD artery on the exterior of the patient's heart."
inserting into the incision a first blade to engage a first rib and a second blade to engage a second rib, and spreading apart the first and second blades to spread apart the first and second ribs;	See, e.g., Page 22, lines 10-15: "In operation, the blades 50 and 51 are positioned within the incision in the patient's chest such that the vanes 52 and 53 slide under the patient's ribs R (see Figs. 6 and 7). The throats 54 and 55 of the blades 50 and 51 receive and substantially surround opposing ribs adjacent to the incision in the patient's chest. Once the blades 50 and 51 are in position, the blades 50 and 51 are connected to the rest of the access platform 10 by inserting the stems 62 and 63 (see Figure 2) of the blade arms 56 and 57 into the sockets 34 and 35 in the torque bases 32 and 33;"

Page 25, line 18-Page 26, line 2: "In operation, the blades 140 and 141 are inserted in an incision in the patient's chest such that the blade vanes 142 and 143 slide under the patient's ribs and the recessed throats 144 and 145 of the blades 140 and 141 capture the ribs that are adjacent to the incision. After the blades 140 and 141 are properly positioned, the stems 152 and 153 of the blade arms 146 and 147 are inserted into the sockets 154 and 155 of the vertical displacement members 130 and 131 to connect the blades 140 and 141 to the remainder of the access platform 110. The levers 125 and 126 are then rotated to drive the pinions 121 and 122 over the rack 120 to laterally retract the ribs;"
Page 28, lines 3-8: "In operation, the blades 230 and 231 are inserted into the chest incision and positioned such that the vane sections 232 and 233 slide under the patient's ribs R and the recess throat sections 234 and 235 capture the patient's ribs R adjacent to the incision. Once the blades 230 and 231 are properly in place, the stems 240 and 241 of the blade arms 236 and 237 are inserted into the sockets 217 and 219 of the pinion housings 216 and 218. Next, the levers 224 and 226 are rotated to drive pinions 220 and 222 along the rack 214 to laterally retract the ribs;"
Page 34, lines 3-6: "In operation, the access platform 410 is positioned such that the blades 470 and 472 can be inserted into an incision in a patient's chest and then attached to the blade arms 474 and 476. Once the blades 470 and 472 are positioned in the incision and attached to the blade arms 474 and 476, the lever 426 is rotated to spread the blades 470 and 472 and the patient's ribs apart;"
Page 35, lines 3-6: " In operation, the blades 532 and 550 are inserted into an incision in the patient's chest and then the stems 526 and 542 of the blade arms 528 and 548 are inserted into the sockets 524 and 544. The lever 538 is rotated to drive the pinion 536 along the rack 520 until the blades 532 and 550 and the patient's ribs are positioned at a desired spacing;"
Page 36, lines 7-12: "In operation, the inferior and superior blades 650 and 652 are inserted in an incision in the patient's chest capturing the inferior and superior ribs adjacent to the incision. The pad arm 683 is sufficiently long to position the sternal pad 681 adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad 681 are properly positioned, the spreader lever 604 is rotated to transversely drive the blade arm 640 connected to the inferior blade 650 along the drive slot 608 to separate the inferior and superior blades 650 and 652;"
Page 38, lines 18-23: "In operation, the blades 650 and 652 are inserted into an incision in the patient's chest while the sternal pad 681 is positioned adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad are properly positioned, the spreader handle 605 is rotated in an appropriate direction to longitudinally and rotatably drive the threaded shaft 603 through the shaft carrier 607 and thereby traversely drive the drive block 609 along the drive base 601 until the separation between the blades 650 and 652 reaches a desired spacing;"

	Page 42, line 15-Page 43, line 8: "In operation, the blades 650 and 652 are inserted in an incision in the patient's chest such that the elongated vanes 656 and 657 of the blade 652 are positioned under the patient's ribs while the recessed throats 653 and 654 of the blades 650 and 652 are positioned to receive the ribs that are adjacent to the incision. After the blades 650 and 652 are properly positioned, the stem 644 of the blade arm 640 is inserted through the fixed pivot lock 615 into the socket 618 of the fixed pivot 616. Meanwhile, the stem 646 of the blade arm 642 is inserted through the moveable pivot lock 626 and the end of the shoe arm 682 opposite the shoe 680, and into the socket 625 of the moveable pivot 624. The blade 650 is then fixed in position by tightening the fixed pivot lock screw 617 to tighten the fixed pivot lock 615 around the stem 644 of the blade arm 640. The rib compression shoe 680 is then adjusted downwardly by adjusting the adjustable offset drive screw 636 until the desired compression of the ribs is achieved. The blade 652 that is interconnected to the moveable pivot 624 is then fixed in position relative to the shoe 680 by tightening the moveable pivot lock screw 627 to tighten the moveable pivot lock 626 around the stem 646 of the blade arm 642. The ribs are then separated and simultaneously offset by rotating the lever 622 to drive the pinion 621 along the rack 613 until a desired opening width is realized;"
	Page 45, line 20-Page 46, line 13: "In operation, with the superior blade 712 and sternal pad 714 assembly separated from the rest of the access platform 700, the superior blade 712 and sternal pad 714 assembly is positioned on the patient's chest. Initially the angle between the blade and pad arms 711 and 715 is large or nearly flat. The superior blade 712 is then inserted into an incision in the patient's chest wall and slid under the superior ribs adjacent to the incision. With the superior blade 712 properly positioned within the incision, the sternal pad 714 is adjusted downwardly on top of the patient's chest wall by rotating the pad arm 715 relative to the blade arm 711 in a clockwise direction to decrease the angle between the pad arm 715 and blade arm 711. Next, the rest of the access platform 700 with the inferior blade 706 attached, is aligned on the patient's chest. The inferior blade 706 is then inserted into the incision in the patient's chest. The blade arm 711 and pad arm 715 assembly is then rotatably mounted on the shaft 710. The access platform 700 is now fully assembled and the blades 706 and 712 are in parallel alignment. The handle 701 is rotated to spread the blades 706 and 712."
	Page 49, line 20-Page 50, line 3: " In operation, the inferior and superior blades 783 and 796 are inserted into an incision in the patient's chest while the sternal pad 785 is positioned adjacent the patient's upper sternal-costal area. After the blades 783 and 796 and the sternal pad 785 are properly positioned, if the surgeon only desires to spread the ribs, only the spreader handle 793 is rotated in an appropriate direction to traversely drive the drive screw 787 and the carrier 789 along the drive base 781. As the carrier 789 is driven along the drive base 781, the superior blade 796 is separated from the inferior blade 783."

lifting the second blade to offset the second blade and rib relative to the first blade and rib thereby exposing an internal mammary artery to direct visualization;	See, e.g., Page 22, line 16-Page 23, line 7: "Next, the hub 14 of the spreader member 12 is rotated to laterally spread the spreader arms 18 and 19 apart until the blades 50 and 51 have retracted the patient's ribs R to a desired spacing. The support pads 80 and 81 are then lowered to rest on the patient's chest and locked in place with lock positioners 90 and 91. At this point, the torque bases 32 and 33 are rotated relative to the torsional members 30 and 31 to displace in an essentially vertical direction the blades 50 and 51, and ultimately the patient's ribs R, relative to each other. As the blade 51 is raised, the corresponding support pad 81 depresses the patient's sternum to cause a greater deflection in the patient's rib cage and, thus, increase the "tunnel" effect. The elongated vane construction of the blades 50 and 51 advantageously enables the access platform 10 to vertically raise a plurality of the patient's ribs R to cause a greater "tunnel" effect under a patient's rib cage and, thus, increases the surgeon's working area and visual access to the IMA. The recessed throat construction of the blades 50 and 51 advantageously enables the access platform 10 to vertically displace the opposite rib that is adjacent to the chest incision downwardly to further increase the surgeon's visual access. This combined motion helps to create an optimum tunnel;"
	Page 26, lines 2-9: "When a desired spacing between the retracted ribs is met, the support pads 160 and 161 are positioned on the chest of the patient, with support pad 160 being preferably positioned on the patient's sternum. The levers 138 and 139 are then rotated to drive the pinions 136 and 137 to draw the curved racks 132 and 133 through the pinion housing 134 and 135 to vertically displace the blades 140 and 141 and the retracted ribs. As the blade 140 is retracted upwards the support pad 160 preferably depresses the sternum creating a greater deflection in the patient's rib cage and, thus, creating a greater "tunnel" effect underneath the patient's rib cage, to increase the surgeon's working space and visual access for dissection of the IMA;"
	Page 28, lines 8-12: "The "L"-shaped lever 256 is then rotated downwardly in a counterclockwise direction toward the patient's chest such that the slide portion 259 slides along the support pad 252 toward the housing 220 while the "L"-shaped lever 256 rotates about the pivot 258. As a result, one end of the rack 214 is raised to vertically offset blade 230 and ribs R relative to the blade 231 and ribs R;"

Page 30, line 16-Page 31, line 3: "In operation, the blade 384 is positioned such that the throat 388 captures the blade 350 or 352 of the access platform 310. As the throat 388 captures the blade 350 or 352 the elongated vane 386 extends under a plurality of the patient's ribs to be offset. The pivot base 377 and the pivots 378 and 380 enable the pry bar 370 to be adjustably positioned about two different axes of rotation. Once the blade 384 is positioned, the sternal pad 374 is adjustably located to atraumatically conform the pry bar 370 to the anatomy of the patient. Once the sternal pad 374 is in position, a handle 375, in the upper portion of the "S"-shaped body 372, is pulled to pivot the pry bar 370 about the sternal pad 374 and lift the blade 384 and the blade 350 or 352 of the access platform 310 to offset the patient's ribs and create a "tunnel" to increase the surgeon's working space and visual access for the dissection of the IMA;"
Page 34, lines 7-13: "The blades 470 and 472 can be effectively offset by rotating the inner hubs 461 and 465 relative to the outer hubs 463 and 467. While the blades 470 and 472 are rotated, the stanchion racks 430 and 432 can be raised or lowered by rotating levers 486 and 488 to drive pinions 442 and 444. By raising or lowering the stanchion racks 430 and 432, the blades 470 and 472 can be effectively raised or lowered relative to one another to further offset the blades 470 and 472 relative to one another. A wrench 468 is utilized to rotate the inner hubs 461 and 465 relative to the outer hubs 463 and 467;"
Page 35, lines 7-9: " The rack 520 is then lifted by the handle 552 to vertically displace or offset the blade 550 and the patient's ribs relative to the blade 532;"
Page 36, lines 12-20: "Once the inferior and superior blades 650 and 652 are separated to a desired spacing, the offset assembly 660 is activated to lift the superior blade 652. As the offset lever 664 is rotated in an appropriate direction, the drive carrier 662 will be driven along the lead screw 661. As the drive carrier 662 rises along the lead screw 661, the drive link 665 and guide link 666 pivot in a clockwise rotation about pivots 687 and 688 causing the superior blade 652 to rotate about a remote center of rotation shown at 669. As the superior blade 652 is rotated about the remote center of rotation 669, the pad arm 683 and sternal pad 681 apply the necessary torque against the patient's upper sternal-costal area to maintain the lift on the superior ribs;"

Page 38, line 23-Page 39, line 13: "To offset the blades 650 and 652, the offset handle 695 is rotated in an appropriate direction to rotate the worm gear 697 and drive the worm gear rack 698 in a clockwise direction. The rotation of the worm gear rack 698 in a clockwise direction pivots the superior blade 652 about the branch 643 of the blade arm 642 in a clockwise rotation. By rotating the superior blade 652 in a clockwise rotation, the superior ribs captured by the superior blade 652 are lifted and a torque necessary to maintain the lift of the ribs is applied to the patient's upper sternal-costal area through the sternal pad 681. By rotating the spreader and offset handles 605 and 695 simultaneously in an appropriate direction, the lifting of the superior ribs is advantageously achieved while simultaneously spreading the blades 650 and 652 or maintaining the already retracted spacing between the blades 650 and 652 and corresponding ribs. More particularly in regard to maintaining the retracted spacing, by rotating the spreader handle 605 simultaneously with the offset handle 695, the drive block 609 is traversely driven along the drive base 601 to compensate for the rearward lateral component of the superior blade's 652 motion as it travels upward in a clockwise arc;"
Page 43, lines 3-21: "The ribs are then separated and simultaneously offset by rotating the lever 622 to drive the pinion 621 along the rack 613 until a desired opening width is realized. Because the movable pivot 624 is advantageously located above the blade 652, the superior blade 652 naturally raises vertically as it rotates about the moveable pivot 624 as a spreading force from the inferior blade 650 is transmitted to the superior blade 652 through the movable pivot 624. Further adjustment of an offset height of the superior blades 652 may be obtained by first loosening the moveable pivot lock 626 around the stem 646 of the blade arm 642 and then adjusting the adjustable offset drive screw 636 to cause the shoe 680 and the shoe arm 682 to rotate downwardly in a clockwise direction relative to the superior blade 652 and, thus, cause the blade 652 that is interconnected to the moveable pivot 624 to rise vertically until a desired offset is achieved. Alternatively, the blade arm 642 would remain fixed to the shoe arm 682 as the offset drive screw 636 is adjusted to cause the shoe 680 and shoe arm 682 to rotate downwardly in a clockwise direction. The clockwise rotation of the shoe 680 and shoe arm 682 causes the blade 652 to rotate upwardly in a clockwise direction;"
Page 46, lines 10-15: "The handle 701 is rotated to spread the blades 706 and 712. Because the shaft 710 is located above the superior blade 712 and because the superior blade 712 and sternal pad 714 assembly pivots freely around the shaft 710 a lifting of the superior blade 712 and ribs naturally occurs as the blades 706 and 712 are separated. The spreading force from the inferior blade 706 is transmitted to the superior blade 712 through the shaft 710 located above the superior blade 712;"

Page 50, lines 3-11: "If the surgeon wishes to raise the ribs as well as spread the ribs, the offset handle 794 is rotated in an appropriate direction to traversely drive the drive screw 787 and carrier across drive base 781 as well as traversely drive the carrier 789 along the drive screw 787. The spreader handle 793 is either held stationary, counter-rotated or rotated in the same direction, depending upon the desired rate of rib lift relative to the rate of rib spreading. As the blades 783 and 796 separate and the shaft-end 787A decreases, the superior blade 796 and ribs naturally lift and rotate in a clockwise direction about the pivot 799 as a torque is applied through the sternal pad 785 to the upper sternal-costal area of the patient's chest to maintain the lift in the superior blade 796 and ribs;"
Page 52, lines 3-16: "In operation, the superior blade 820 and ribs are naturally lifted as the blades 805 and 820 are separated. Because the pivot 819 is located above the superior blade 820, a lifting force is exerted on the superior blade 820 and ribs while spreading is occurring. The spreading force from the inferior blade 805 is transmitted to the superior blade 820 through the high-mounted pivot 819. However, the lift of the ribs or, more particularly, the rotation of the superior blade 820 about the pivot 819 in a clockwise direction is inhibited by the force exerted by the offset spring 810. The superior blade 820 and ribs will not begin to lift until the moment force caused by the rotation of the superior blade 820 about the pivot 819 is greater than the spring force exerted by the offset spring 810 on the lift tab 809. The spring force is adjustable, and hence the amount of offset is adjustable, by rotating the handle 812 to lower or raise the compression member 813 along the offset screw 811. As the compression member 813 is lowered or brought closer to the tab 809, the spring force exerted by the offset spring 810 is increased, and hence the amount the superior blade 820 is lifted or rotated is decreased. Thus, the adjustable spring force can be used in a "pre-set" mode by the surgeon;"
Page 54, lines 11-21: "In operation, the handle 732 is first rotated in a counterclockwise direction to lift and separate the superior blade 740 and ribs from the inferior blade 741 and ribs. Once in the offset position, the offset positioning assembly 748 is engaged by sliding the shafts 750 and 751 into the holes 757 and 758 of the positioning mounts 746 and 747 on the inferior and superior blades 741 and 740. The pad arm 756 is rotated downwardly until the sternal pad 755 contacts the patient's chest (see Figure 47). The offset spreader assembly 731 is then removed by sliding the tails 744 and 745 of the blade mounts 734 and 735 off of the pins 742 and 743 of the blades 740 and 741. With the offset spreader assembly 731 removed, the offset positioning assembly 748 holds the blades 740 and 741 apart and applies the necessary torque against the patient's upper sternal-costal area to maintain the lift on the superior blade 740 and ribs. While in the offset position, the access to dissect the IMA is wide open;"

	Page 55, lines 7-11: " In operation, force is applied to the free end of the handle 761 to rotate the handle 761 in a counterclockwise direction about pivots 764 and 765 on the inferior blade mounts 771 and 770 and lift and separate the superior blade 740 in a single motion from the inferior blade 741. The U-shaped handle 761 and stabilizing links 762 and 763 facilitate the lateral stability of the access platform 729."
dissecting the internal mammary artery; and	See, e.g., Page 23, lines 19-23: "In a first offset position, the blade 51 raises the retracted ribs and the blade 50 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 50 and 51 are rotated to a second offset position wherein the blade 50 raises the retracted ribs and the blade 51 depresses the retracted ribs. In this offset position, the surgeon takes down the distal portion of the IMA;"
	Page 26, line 20-Page 27, line 1: "In a first offset position, the blade 141 raises the retracted ribs and the blade 140 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 140 and 141 are adjusted to a second offset position wherein the blade 140 lifts the retracted ribs and the blade 141 depresses the retracted ribs. In the second offset position, the surgeon takes down the distal portion of the IMA;"
	Page 36, lines 21-22: "In the offset position, with the superior blade 652 maintaining a lift of the superior ribs and the tissue retractors 670 and 672 engaged, a surgeon can dissect the IMA;"
	Page 39, lines 14-15: "With the superior blade 652 and ribs raised in an offset position, the surgeon can dissect the IMA;"
	Page 44, lines 5-6: "In the offset position, with the superior blade 652 raising the patient's ribs, the surgeon can dissect the IMA;"
	Page 46, lines 15-16: "With the blades 706 and 712 offset, the surgeon can harvest the IMA. Upon completion of the IMA harvest;"
	Page 50, lines 11-12: "While in the offset position, the surgeon can dissect the IMA."
performing the anastomosis.	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 37, lines 1-2: "In the substantially level separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 39, lines 17-18: "With the blades 650 and 652 in a level and separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."

9. The procedure of claim 8 wherein the patient is positioned on a surgical table, and wherein the second blade is lifted using a lifting mechanism that is mounted to the surgical table and extends upwardly to a position above the patient.	See, e.g., Figure 26; Page 33, lines 7-14: "Turning to Figure 26, a ninth embodiment of the access platform 410 of the present invention is shown. The access platform 410 mounts to the table or rail via slides 438 and 440 that are locked in place by positioners 450 and 452. The slides 438 and 440 rotatably retain pinions 442 and 444 driven by levers 446 and 448 and slidably receive stanchion racks 430 and 432. The stanchion racks 430 and 432 include rack gears 434 and 436 that operably couple with pinions 442 and 444. The levers 446 and 448 are rotated to drive the pinions 442 and 444 along rack gears 434 and 436 to adjust the height of the stanchion racks 430 and 432 relative to the table or patient, or to vertically offset blades 470 and 472 relative to one another."
10. The procedure of claim 8 and further including:	
Reducing movement of the heart;	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."
suturing the internal mammary artery to an incision made in the blocked artery while the movement of the heart reduced.	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."
11. A minimally invasive coronary anastomosis procedure for a blocked coronary artery of a heart, the procedure comprising:	See, e.g., figures 1-2, 13-15, 16-17, 18-21, 22, 23, 26, 27, 28, 29, 30, 31-32, 33-34, and 39; Page 14, lines 12-16: "Referring now in detail to the drawings, therein illustrated are novel embodiments of an access platform that facilitates the dissection of an internal mammary artery (IMA), including both proximal and distal dissection, and access to the heart during a "beating heart" Coronary Artery Bypass Graph (CABG) procedure by increasing the surgeon's working space and visual access."
providing an incision in an intercostal space between two juxtaposed ribs of a patient, the incision providing access to a selected anastomosis site on the blocked coronary artery;	See, e.g., Figure 1; Page 14, lines 19-22: " Turning to Figure 1, the access platform 10 incorporating a preferred embodiment of the present invention, is shown disposed over the outline of a patient's chest P. An incision in the patient's chest P adjacent to the LIMA (shown in phantom) exposes an LAD artery on the exterior of the patient's heart."

inserting a spreader device between the two juxtaposed ribs such that when the spreader device is operated, the ribs are spread apart widening the incision;	See, e.g., Page 22, lines 10-15: "In operation, the blades 50 and 51 are positioned within the incision in the patient's chest such that the vanes 52 and 53 slide under the patient's ribs R (see Figs. 6 and 7). The throats 54 and 55 of the blades 50 and 51 receive and substantially surround opposing ribs adjacent to the incision in the patient's chest. Once the blades 50 and 51 are in position, the blades 50 and 51 are connected to the rest of the access platform 10 by inserting the stems 62 and 63 (see Figure 2) of the blade arms 56 and 57 into the sockets 34 and 35 in the torque bases 32 and 33;"
	Page 25, line 18-Page 26, line 2: "In operation, the blades 140 and 141 are inserted in an incision in the patient's chest such that the blade vanes 142 and 143 slide under the patient's ribs and the recessed throats 144 and 145 of the blades 140 and 141 capture the ribs that are adjacent to the incision. After the blades 140 and 141 are properly positioned, the stems 152 and 153 of the blade arms 146 and 147 are inserted into the sockets 154 and 155 of the vertical displacement members 130 and 131 to connect the blades 140 and 141 to the remainder of the access platform 110. The levers 125 and 126 are then rotated to drive the pinions 121 and 122 over the rack 120 to laterally retract the ribs;"
	Page 28, lines 3-8: "In operation, the blades 230 and 231 are inserted into the chest incision and positioned such that the vane sections 232 and 233 slide under the patient's ribs R and the recess throat sections 234 and 235 capture the patient's ribs R adjacent to the incision. Once the blades 230 and 231 are properly in place, the stems 240 and 241 of the blade arms 236 and 237 are inserted into the sockets 217 and 219 of the pinion housings 216 and 218. Next, the levers 224 and 226 are rotated to drive pinions 220 and 222 along the rack 214 to laterally retract the ribs;"
	Page 34, lines 3-6: "In operation, the access platform 410 is positioned such that the blades 470 and 472 can be inserted into an incision in a patient's chest and then attached to the blade arms 474 and 476. Once the blades 470 and 472 are positioned in the incision and attached to the blade arms 474 and 476, the lever 426 is rotated to spread the blades 470 and 472 and the patient's ribs apart;"
	Page 35, lines 3-6: " In operation, the blades 532 and 550 are inserted into an incision in the patient's chest and then the stems 526 and 542 of the blade arms 528 and 548 are inserted into the sockets 524 and 544. The lever 538 is rotated to drive the pinion 536 along the rack 520 until the blades 532 and 550 and the patient's ribs are positioned at a desired spacing;"
	Page 36, lines 7-12: "In operation, the inferior and superior blades 650 and 652 are inserted in an incision in the patient's chest capturing the inferior and superior ribs adjacent to the incision. The pad arm 683 is sufficiently long to position the sternal pad 681 adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad 681 are properly positioned, the spreader lever 604 is rotated to transversely drive the blade arm 640 connected to the inferior blade 650 along the drive slot 608 to separate the inferior and superior blades 650 and 652;"

Page 38, lines 18-23: "In operation, the blades 650 and 652 are inserted into an incision in the patient's chest while the sternal pad 681 is positioned adjacent the patient's upper sternal-costal area. After the blades 650 and 652 and sternal pad are properly positioned, the spreader handle 605 is rotated in an appropriate direction to longitudinally and rotatably drive the threaded shaft 603 through the shaft carrier 607 and thereby traversely drive the drive block 609 along the drive base 601 until the separation between the blades 650 and 652 reaches a desired spacing;"
Page 42, line 15-Page 43, line 8: "In operation, the blades 650 and 652 are inserted in an incision in the patient's chest such that the elongated vanes 656 and 657 of the blade 652 are positioned under the patient's ribs while the recessed throats 653 and 654 of the blades 650 and 652 are positioned to receive the ribs that are adjacent to the incision. After the blades 650 and 652 are properly positioned, the stem 644 of the blade arm 640 is inserted through the fixed pivot lock 615 into the socket 618 of the fixed pivot 616. Meanwhile, the stem 646 of the blade arm 642 is inserted through the moveable pivot lock 626 and the end of the shoe arm 682 opposite the shoe 680, and into the socket 625 of the moveable pivot 624. The blade 650 is then fixed in position by tightening the fixed pivot lock screw 617 to tighten the fixed pivot lock 615 around the stem 644 of the blade arm 640. The rib compression shoe 680 is then adjusted downwardly by adjusting the adjustable offset drive screw 636 until the desired compression of the ribs is achieved. The blade 652 that is interconnected to the moveable pivot 624 is then fixed in position relative to the shoe 680 by tightening the moveable pivot lock screw 627 to tighten the moveable pivot lock 626 around the stem 646 of the blade arm 642. The ribs are then separated and simultaneously offset by rotating the lever 622 to drive the pinion 621 along the rack 613 until a desired opening width is realized;"
Page 45, line 20-Page 46, line 13: "In operation, with the superior blade 712 and sternal pad 714 assembly separated from the rest of the access platform 700, the superior blade 712 and sternal pad 714 assembly is positioned on the patient's chest. Initially the angle between the blade and pad arms 711 and 715 is large or nearly flat. The superior blade 712 is then inserted into an incision in the patient's chest wall and slid under the superior ribs adjacent to the incision. With the superior blade 712 properly positioned within the incision, the sternal pad 714 is adjusted downwardly on top of the patient's chest wall by rotating the pad arm 715 relative to the blade arm 711 in a clockwise direction to decrease the angle between the pad arm 715 and blade arm 711. Next, the rest of the access platform 700 with the inferior blade 706 attached, is aligned on the patient's chest. The inferior blade 706 is then inserted into the incision in the patient's chest. The blade arm 711 and pad arm 715 assembly is then rotatably mounted on the shaft 710. The access platform 700 is now fully assembled and the blades 706 and 712 are in parallel alignment. The handle 701 is rotated to spread the blades 706 and 712."

	Page 49, line 20-Page 50, line 3: " In operation, the inferior and superior blades 783 and 796 are inserted into an incision in the patient's chest while the sternal pad 785 is positioned adjacent the patient's upper sternal-costal area. After the blades 783 and 796 and the sternal pad 785 are properly positioned, if the surgeon only desires to spread the ribs, only the spreader handle 793 is rotated in an appropriate direction to traversely drive the drive screw 787 and the carrier 789 along the drive base 781. As the carrier 789 is driven along the drive base 781, the superior blade 796 is separated from the inferior blade 783."
dissecting an internal mammary artery;	See, e.g., Page 23, lines 19-23: "In a first offset position, the blade 51 raises the retracted ribs and the blade 50 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 50 and 51 are rotated to a second offset position wherein the blade 50 raises the retracted ribs and the blade 51 depresses the retracted ribs. In this offset position, the surgeon takes down the distal portion of the IMA;"
	Page 26, line 20-Page 27, line 1: "In a first offset position, the blade 141 raises the retracted ribs and the blade 140 depresses the retracted ribs so that the surgeon can dissect the proximal portion of the IMA. Next, the blades 140 and 141 are adjusted to a second offset position wherein the blade 140 lifts the retracted ribs and the blade 141 depresses the retracted ribs. In the second offset position, the surgeon takes down the distal portion of the IMA;"
	Page 36, lines 21-22: "In the offset position, with the superior blade 652 maintaining a lift of the superior ribs and the tissue retractors 670 and 672 engaged, a surgeon can dissect the IMA;"
	Page 39, lines 14-15: "With the superior blade 652 and ribs raised in an offset position, the surgeon can dissect the IMA;"
	Page 44, lines 5-6: "In the offset position, with the superior blade 652 raising the patient's ribs, the surgeon can dissect the IMA;"
	Page 46, lines 15-16: "With the blades 706 and 712 offset, the surgeon can harvest the IMA. Upon completion of the IMA harvest;"
	Page 50, lines 11-12: "While in the offset position, the surgeon can dissect the IMA."
reducing movement of the heart;	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."

incising the blocked coronary artery downstream from the blockage; and	See, e.g., Page 2, lines 3-7: "In the CABG procedure, the surgeon either removes a portion of a vein from another part of the body to use as a graft and installs the graft at points that bypass the obstruction to restore normal blood flow to the heart or detaches one end of an artery and connects that end past the obstruction while leaving the other end attached to the arterial supply to restore normal blood flow to the heart;"
	Page 2, line 18-Page 3, line 6: "The CABG procedure further requires that a connection for the flow of blood be established between two points that "by pass" a diseased area and restore an adequate blood flow. Typically, one end of a graft is sewn to the aorta, while the other end of the graft is sewn to a coronary artery, such as the left anterior descending (LAD) artery that provides blood flow to the main muscles of the heart. This procedure is known as a "free bypass graft." Alternatively, the IMA pedicle is dissected off of the chest wall, while still attached to its arterial supply, and attached to the LAD past the obstruction. This procedure is known as an "in situ bypass graft." In an in situ bypass graft, the IMA must be dissected from its connective tissue until there is sufficient slack in the IMA to insure that the graft does not kink after it is installed. The IMAs, left and right, extend from the subclavian arteries in the neck to the diaphragm and run along the backside of the rib cage adjacent the sternum;"
	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 37, lines 1-2: "In the substantially level separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 39, lines 17-18: "With the blades 650 and 652 in a level and separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."

suturing the dissected internal mammary artery to the incision on the blocked coronary artery at the selected anastomosis site.	See, e.g., Page 2, lines 3-7: "In the CABG procedure, the surgeon either removes a portion of a vein from another part of the body to use as a graft and installs the graft at points that bypass the obstruction to restore normal blood flow to the heart or detaches one end of an artery and connects that end past the obstruction while leaving the other end attached to the arterial supply to restore normal blood flow to the heart;"
	Page 2, line 18-Page 3, line 6: "The CABG procedure further requires that a connection for the flow of blood be established between two points that "by pass" a diseased area and restore an adequate blood flow. Typically, one end of a graft is sewn to the aorta, while the other end of the graft is sewn to a coronary artery, such as the left anterior descending (LAD) artery that provides blood flow to the main muscles of the heart. This procedure is known as a "free bypass graft." Alternatively, the IMA pedicle is dissected off of the chest wall, while still attached to its arterial supply, and attached to the LAD past the obstruction. This procedure is known as an "in situ bypass graft." In an in situ bypass graft, the IMA must be dissected from its connective tissue until there is sufficient slack in the IMA to insure that the graft does not kink after it is installed. The IMAs, left and right, extend from the subclavian arteries in the neck to the diaphragm and run along the backside of the rib cage adjacent the sternum;"
	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 37, lines 1-2: "In the substantially level separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 39, lines 17-18: "With the blades 650 and 652 in a level and separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."
12. The procedure of claim 11 wherein the patient is positioned on a surgical table, and wherein the spreader device is lifted using a lifting mechanism that is mounted to the surgical table and extends upwardly to a position above the patient.	See, e.g., Figure 26; Page 33, lines 7-14: "Turning to Figure 26, a ninth embodiment of the access platform 410 of the present invention is shown. The access platform 410 mounts to the table or rail via slides 438 and 440 that are locked in place by positioners 450 and 452. The slides 438 and 440 rotatably retain pinions 442 and 444 driven by levers 446 and 448 and slidably receive stanchion racks 430 and 432. The stanchion racks 430 and 432 include rack gears 434 and 436 that operably couple with pinions 442 and 444. The levers 446 and 448 are rotated to drive the pinions 442 and 444 along rack gears 434 and 436 to adjust the height of the stanchion racks 430 and 432 relative to the table or patient, or to vertically offset blades 470 and 472 relative to one another."

13. The procedure of claim 11 wherein the dissected internal mammary artery is sutured to the occluded coronary artery.	See, e.g., Page 2, lines 3-7: "In the CABG procedure, the surgeon either removes a portion of a vein from another part of the body to use as a graft and installs the graft at points that bypass the obstruction to restore normal blood flow to the heart or detaches one end of an artery and connects that end past the obstruction while leaving the other end attached to the arterial supply to restore normal blood flow to the heart;"
	Page 2, line 18-Page 3, line 6: "The CABG procedure further requires that a connection for the flow of blood be established between two points that "by pass" a diseased area and restore an adequate blood flow. Typically, one end of a graft is sewn to the aorta, while the other end of the graft is sewn to a coronary artery, such as the left anterior descending (LAD) artery that provides blood flow to the main muscles of the heart. This procedure is known as a "free bypass graft." Alternatively, the IMA pedicle is dissected off of the chest wall, while still attached to its arterial supply, and attached to the LAD past the obstruction. This procedure is known as an "in situ bypass graft." In an in situ bypass graft, the IMA must be dissected from its connective tissue until there is sufficient slack in the IMA to insure that the graft does not kink after it is installed. The IMAs, left and right, extend from the subclavian arteries in the neck to the diaphragm and run along the backside of the rib cage adjacent the sternum;"
	See, e.g., Page 24, lines 1-3: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 27, lines 3-4: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and an anastomosis;"
	Page 37, lines 1-2: "In the substantially level separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 39, lines 17-18: "With the blades 650 and 652 in a level and separated position, the surgeon can perform an arteriotomy and an anastomosis;"
	Page 44, lines 9-10: "With the heart stabilizer 67 engaged to minimize the movement of the heart, the surgeon performs an arteriotomy and anastomosis."

14. A device for use in a surgical procedure in which an incision is made between two juxtaposed ribs of a patient, the device comprising:	See, e.g., Figures 18, 19, 20, 21, 22, 23, and 26.
a first arm member having a proximal end portion and a distal end portion, the distal end portion having a rib engaging blade, and the distal and proximal end portions being hingedly attached to each other;	See, e.g., Page 29, lines 1-7: "A pair of blade arms 338 and 340 include branch sections 346 and 348 that extend downwardly from central portions 339 and 341 and connect to blades 350 and 352. Stem portions 342 and 344 extend from the central portions 339 and 341 opposite the branch sections 346 and 348. The stem 342 extends between and is pivotally mounted to fingers 330A and 330B at a pivot 331. Likewise, stem 344 extends between and is pivotally mounted to fingers 332A and 332B at a pivot 333. As a result, the blade arms 338 and 340 rotate about an axis of rotation A_1 that is parallel to the rack 320;"
	Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
	Page 31, lines 4-8: "A sixth embodiment of the access platform 310 is shown in Figure 22 to comprise a combination of components from the first and fourth embodiments (Figures 2 and 18). More particularly, the torsional members 30 and 31 of the first embodiment are interposed between and operably connected to the fingers 330A and 330B and the housing 322, and interposed between and operably connected to the fingers 332A and 332B and the spreader base 328, respectively;"
	Page 31, lines 16-19: "Turning to Figure 23, a seventh embodiment of the access platform is shown to comprise a modification of the fifth embodiment of the access platform shown in Figure 19. The access platform 310 in Figure 23 includes an offset assembly 308 interconnected to the blades 350 and 352;"

a second arm member having a proximal end portion and a distal end portion, the distal end portion having a rib engaging blade and the distal and proximal end portions being hingedly attached to each other;	See, e.g., Page 29, lines 1-7: "A pair of blade arms 338 and 340 include branch sections 346 and 348 that extend downwardly from central portions 339 and 341 and connect to blades 350 and 352. Stem portions 342 and 344 extend from the central portions 339 and 341 opposite the branch sections 346 and 348. The stem 342 extends between and is pivotally mounted to fingers 330A and 330B at a pivot 331. Likewise, stem 344 extends between and is pivotally mounted to fingers 332A and 332B at a pivot 333. As a result, the blade arms 338 and 340 rotate about an axis of rotation A_1 that is parallel to the rack 320;"
	Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
	Page 31, lines 4-8: "A sixth embodiment of the access platform 310 is shown in Figure 22 to comprise a combination of components from the first and fourth embodiments (Figures 2 and 18). More particularly, the torsional members 30 and 31 of the first embodiment are interposed between and operably connected to the fingers 330A and 330B and the housing 322, and interposed between and operably connected to the fingers 332A and 332B and the spreader base 328, respectively;"
	Page 31, lines 16-19: "Turning to Figure 23, a seventh embodiment of the access platform is shown to comprise a modification of the fifth embodiment of the access platform shown in Figure 19. The access platform 310 in Figure 23 includes an offset assembly 308 interconnected to the blades 350 and 352;"
a mechanism that operably connects the first and the second arm members at the proximal end such that the arm members are movable toward and away from each other; and	See, e.g., Page 28, lines 16-22: " A fourth embodiment is shown in Figure 18. The access platform 310 of the fourth embodiment includes a spreader member 312 comprising a rack 320, a housing 322 slidably received over the rack 320, a pinion 324 rotatably retained in the housing 322 and a lever 326 connected to the pinion 324. A spreader base 328 is attached to one end of the rack 320. A pair of parallel spaced fingers 330A and 330B extend from the housing 322. Similarly, a pair of parallel spaced fingers 332A and 332B extend from the spreader base 328 and are positioned parallel to the fingers 330A and 330B extending from the housing 322;"

	Page 31, lines 4-8: "A sixth embodiment of the access platform 310 is shown in Figure 22 to comprise a combination of components from the first and fourth embodiments (Figures 2 and 18). More particularly, the torsional members 30 and 31 of the first embodiment are interposed between and operably connected to the fingers 330A and 330B and the housing 322, and interposed between and operably connected to the fingers 332A and 332B and the spreader base 328, respectively;"
	Page 31, lines 16-19: "Turning to Figure 23, a seventh embodiment of the access platform is shown to comprise a modification of the fifth embodiment of the access platform shown in Figure 19. The access platform 310 in Figure 23 includes an offset assembly 308 interconnected to the blades 350 and 352;"
	Page 33, lines 15-19: " A pinion housing 422 is slidably attached to the stanchion rack 432 towards its upper end. A rack 420 is attached at one end to stanchion rack 430 and is slidably received in the pinion housing 422. A pinion 424 driven by a lever 426 is rotatably retained in the pinion housing 422 and operably connected to the rack 420. The lever 426 is rotated to drive the pinion 424 along the rack 420 to spread apart the stanchion racks 430 and 432 and effectively a patient's ribs."
a rib offsetting device, the device being operably coupled to the blade of the second arm member, and adapted to move the blade portion of the second arm member in an upward direction thereby lifting the blade of the second arm member which results in lifting a section of the patient's ribs.	See, e.g., Page 30, lines 9-15: "Turning to Figures 20 and 21, a pry bar 370, which is used in conjunction with the access platform 310 shown in Figure 18 or 19 to offset a patient's ribs, comprises a generally "S"-shaped body 372 pivotally connected to a pivot base 377 at pivot 378. The pivot base 377 is in turn pivotally connected to a blade arm 382 at pivot 380. The blade arm 382 extends downwardly from the pivot 380 and connects to a blade 384. The blade 384 includes an elongated vane 386 and a deep recessed throat 388. A sternal pad 374 is connected to a post 379 that is slidably mounted on the lower portion 373 of the "S"-shaped body 372 via a slide 376;"
	Page 31, lines 4-15: "A sixth embodiment of the access platform 310 is shown in Figure 22 to comprise a combination of components from the first and fourth embodiments (Figures 2 and 18). More particularly, the torsional members 30 and 31 of the first embodiment are interposed between and operably connected to the fingers 330A and 330B and the housing 322, and interposed between and operably connected to the fingers 332A and 332B and the spreader base 328, respectively. In addition, the support pads 80 and 81 of the first embodiment are adjustably attached to the fingers 330A and 330B, 332A and 332B. By including the torsional members 30 and 31 and the support pads 80 and 81, second and third axes of rotation A_2 and A_3 are provided. Thus, as in the first embodiment, the torsional members 30 and 31 enable the access platform 310 to vertically displace the blades 350 and 352 and the retracted ribs. To vertically displace the blades 350 and 352, the blade arms 338 and 340 are fixedly coupled to the fingers 330A and 330B, 332A and 332B by pins 334 and 336;"

	Page 31, line 16 – Page 32, line 9: "Turning to Figure 23, a seventh embodiment of the access platform is shown to comprise a modification of the fifth embodiment of the access platform shown in Figure 19. The access platform 310 in Figure 23 includes an offset assembly 308 interconnected to the blades 350 and 352. The offset assembly 308 comprises lead screws 313 and 314 extending between the blades 350 and 352 and further operably interconnecting the blades 350 and 352. At a first end, the lead screws 313 and 314 are rotatably captured by capture mounts 317 and 318. The capture mounts 317 and 318 are fixed to the blade 350. The threaded portion of the lead screws 313 and 314 threadably passes through a pair of lift mounts 315 and 316. The lift mount 315 is affixed to the blade arm 340 which is interconnected to the superior blade 352. The lift mount 316 is affixed to the top of a lift mount arm 319 extending vertically from the superior blade 352 to a height which is level with the lift mount 315 on the blade arm 340. Levers 309 and 311, which are attached to a second end of the lead screws 313 and 314, are used to rotate the lead screws 313 and 314 to drive the lift mounts 315 and 316 thereon. With the horizontal distance between the inferior and superior blades 350 and 352 adjustably fixed by the spreader member 312, the offset assembly 308 is only able to vertically displace the blade 352 relative to the blade 350. Thus, depending on the direction of rotation of the lead screws 313 and 314, the superior blade 352 will be raised or lowered to offset it relative to the inferior blade 350;"
	Page 33, lines 7-14: "Turning to Figure 26, a ninth embodiment of the access platform 410 of the present invention is shown. The access platform 410 mounts to the table or rail via slides 438 and 440 that are locked in place by positioners 450 and 452. The slides 438 and 440 rotatably retain pinions 442 and 444 driven by levers 446 and 448 and slidably receive stanchion racks 430 and 432. The stanchion racks 430 and 432 include rack gears 434 and 436 that operably couple with pinions 442 and 444. The levers 446 and 448 are rotated to drive the pinions 442 and 444 along rack gears 434 and 436 to adjust the height of the stanchion racks 430 and 432 relative to the table or patient, or to vertically offset blades 470 and 472 relative to one another;"
	Page 34, lines 7-13: " The blades 470 and 472 can be effectively offset by rotating the inner hubs 461 and 465 relative to the outer hubs 463 and 467. While the blades 470 and 472 are rotated, the stanchion racks 430 and 432 can be raised or lowered by rotating levers 486 and 488 to drive pinions 442 and 444. By raising or lowering the stanchion racks 430 and 432, the blades 470 and 472 can be effectively raised or lowered relative to one another to further offset the blades 470 and 472 relative to one another. A wrench 468 is utilized to rotate the inner hubs 461 and 465 relative to the outer hubs 463 and 467."

15. The device of claim 14 wherein the mechanism includes a rack bar fixedly attached to the first arm member at one end and at another end movably engages the proximal end portion of the second arm member such that the second arm member moves away and toward the first arm member along the rack bar.	See, e.g., Page 28, lines 16-22: " A fourth embodiment is shown in Figure 18. The access platform 310 of the fourth embodiment includes a spreader member 312 comprising a rack 320, a housing 322 slidably received over the rack 320, a pinion 324 rotatably retained in the housing 322 and a lever 326 connected to the pinion 324. A spreader base 328 is attached to one end of the rack 320. A pair of parallel spaced fingers 330A and 330B extend from the housing 322. Similarly, a pair of parallel spaced fingers 332A and 332B extend from the spreader base 328 and are positioned parallel to the fingers 330A and 330B extending from the housing 322;"
	Page 33, lines 15-19: " A pinion housing 422 is slidably attached to the stanchion rack 432 towards its upper end. A rack 420 is attached at one end to stanchion rack 430 and is slidably received in the pinion housing 422. A pinion 424 driven by a lever 426 is rotatably retained in the pinion housing 422 and operably connected to the rack 420. The lever 426 is rotated to drive the pinion 424 along the rack 420 to spread apart the stanchion racks 430 and 432 and effectively a patient's ribs."
16. The device of claim 14 wherein the first arm member further includes two hinge sections and a mid-section that is hingedly attached to the proximal end portion at one end and to the distal end portion at another end.	See, e.g., Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"
17. The device of claim 14 wherein the second arm member further includes two hinge sections and a mid-section that is hingedly attached to the proximal end portion at one end and to the distal end portion at another end.	See, e.g., Page 29, line 14-Page 30, line 1: "As shown in Figure 19, a fifth embodiment of the access platform 310 modifies the fourth embodiment shown in Figure 18 to include a pair of links 360 and 362 interposed and hingedly interconnected to the blade arms 338 and 340 and the housing 322 and spreader base 328, respectively. The links 360 and 362 comprise link bodies 364 and 366 and parallel spaced fingers 368A and 368B and 369A and 369B, respectively, extending from the link bodies 364 and 366. The link bodies 364 and 366 extend between and pivotally mount to the fingers 330A and 330B and 332A and 332B at pivots 331 and 333, respectively. Likewise, the stems 342 and 344 of the blade arms 338 and 340 extend between and pivotally mount to the fingers 368A and 368B and 369A and 369B at pivots 363 and 365, respectively. As a result, the blade arms 338 and 340 and the links 360 and 362 rotate about parallel axes of rotation A_1 and A_2 that are parallel to the rack 320;"

	Page 31, lines 4-8: "A sixth embodiment of the access platform 310 is shown in Figure 22 to comprise a combination of components from the first and fourth embodiments (Figures 2 and 18). More particularly, the torsional members 30 and 31 of the first embodiment are interposed between and operably connected to the fingers 330A and 330B and the housing 322, and interposed between and operably connected to the fingers 332A and 332B and the spreader base 328, respectively;"
	Page 31, lines 16-19: "Turning to Figure 23, a seventh embodiment of the access platform is shown to comprise a modification of the fifth embodiment of the access platform shown in Figure 19. The access platform 310 in Figure 23 includes an offset assembly 308 interconnected to the blades 350 and 352;"
18. The device of claim 14 wherein the distal end portion of the first arm member further includes a plurality of fingers extending away from the blade for retaining fatty tissue away from the incision.	See, e.g., Figures 9-12; Page 20, lines 4-Page 2, line 6: "As shown in Figure 9, a tissue retractor 100 alternatively includes a plurality of malleable retractor fingers 101A, 101B and 101C extending upwardly from the throat section 55 of the blade 51. The retractor fingers are preferably constructed from annealed sheet metal approximately 0.035 inch thick. The fingers 101A, 101B and 101C are preferably welded onto the blades 51 or 50. Prior to operation, the retractor fingers 101A, 101B and 101C extend relatively vertically from the blade 51 or 50. Once the blade 51 or 50 is in position, the retractor fingers 101A, 101B and 101C are bent over the patient's rib cage to retract the soft tissue adjacent to the incision area out of the surgeon's working space. Because of the thickness of the sheet metal, the retractor fingers 101A, 101B and 101C are easily deformed and retain their position once deformed.
	Turning to Figures 10, 11 and 12, the tissue retractor 100 optionally includes a positioner assembly 103. The positioner assembly 103 includes a retractor base 104 mounted to the blade 51 by mounting pins 114. A semi-cylindrical guide 107 extends the length of the retractor base 104. The central portion 109 of the guide 107 is formed integrally with the retractor base 104. The outer portions of the guide 107, however, are formed in a spaced apart relation with the retractor base 104 and extend outwardly from the central portion 109 of the guide 107. A generally wedge-shaped brake 108 also extends the length of the retractor base 104. The brake 108 is formed integrally with the guide 107 extending radially away from the guide at a narrowly formed flexure 106 which extends the length of the brake 108 and guide 107. A tab 105 located adjacent to the central portion 109 of guide 107 extends vertically from the brake 108. A pair of sleeves 102A and 102B are rotatably received over the guide 107 and brake 108. The sleeves 102A and 102B are connected to or formed integrally with the retractor fingers 101A and 101C, respectively. The retractor fingers 101A and 101C are formed integrally with or are attached to a central retractor finger 101B. The brake 108 includes a radius 111 extending downwardly from the flexure 106. As the brake is rotated in the counterclockwise direction, the radius 111 exceeds the radius of the sleeves 102A and 102B;"